

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 AUG 09 INSPEC enhanced with 1898-1968 archive
NEWS 4 AUG 28 ADISCTI Reloaded and Enhanced
NEWS 5 AUG 30 CA(SM)/CAPLUS(SM) Austrian patent law changes
NEWS 6 SEP 11 CA/CAPLUS enhanced with more pre-1907 records
NEWS 7 SEP 21 CA/CAPLUS fields enhanced with simultaneous left and right
truncation
NEWS 8 SEP 25 CA(SM)/CAPLUS(SM) display of CA Lexicon enhanced
NEWS 9 SEP 25 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 10 SEP 25 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 11 SEP 28 CEABA-VTB classification code fields reloaded with new
classification scheme
NEWS 12 OCT 19 LOGOFF HOLD duration extended to 120 minutes
NEWS 13 OCT 19 E-mail format enhanced
NEWS 14 OCT 23 Option to turn off MARPAT highlighting enhancements available
NEWS 15 OCT 23 CAS Registry Number crossover limit increased to 300,000 in
multiple databases
NEWS 16 OCT 23 The Derwent World Patents Index suite of databases on STN
has been enhanced and reloaded
NEWS 17 OCT 30 CHEMLIST enhanced with new search and display field

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8
NEWS X25 X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 11:31:06 ON 02 NOV 2006

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

1.26

1.26

FILE 'CAPLUS' ENTERED AT 11:34:30 ON 02 NOV 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 2 Nov 2006 VOL 145 ISS 19
FILE LAST UPDATED: 1 Nov 2006 (20061101/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> diffusion mode.

536141 DIFFUSION
1665 DIFFUSIONS
536628 DIFFUSION
(DIFFUSION OR DIFFUSIONS)
322643 MODE
163782 MODES
435144 MODE
(MODE OR MODES)
L1 452 DIFFUSION MODE
(DIFFUSION (W) MODE)

=> oxygen

742052 OXYGEN
6958 OXYGENS
L2 746901 OXYGEN
(OXYGEN OR OXYGENS)

=> l1(1)l2

L3 3 L1(L)L2

=> d l3 1-3 ti fbib abs

L3 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
TI Phosphorus diffusion in silicon; influence of annealing conditions
AN 2002:254247 CAPLUS
DN 136:268496
TI Phosphorus diffusion in silicon; influence of annealing conditions
AU Christensen, J. S.; Kuznetsov, A. Yu.; Radamson, H. H.; Svensson, B. G.
CS Department of Electronics, Royal Institute of Technology (KTH),
Kista-Stockholm, SE-164 40, Swed.
SO Materials Research Society Symposium Proceedings (2001), 669(Si Front-End
Processing--Physics and Technology of Dopant-Defect Interactions III),
J3.9.1-J3.9.6
CODEN: MRSPDH; ISSN: 0272-9172
PB Materials Research Society
DT Journal
LA English
AB Phosphorus diffusion was studied in both pure epitaxially grown silicon
and Cz silicon, with a substantial amount of impurities like oxygen
and carbon. Anneals were performed in different atms., N2 and dry O2, as

well as in vacuum, at temps. between 810-1100°C. Diffusion coeffs. extracted from these anneals show no difference for the P diffusion in the epitaxially grown or the Cz silicon. The diffusion coeffs. follow an Arrhenius dependence with the activation energy $E_a = 2.74 \pm 0.07$ eV and a prefactor $D_0 = (8 \pm 5) \times 10^{-4}$ cm²/s. These parameters differ considerably from the previously reported and widely accepted values (3.66 eV and 3.84 cm²/s, resp.). However, vacuum anneals of the same samples result in values close to this 3.6 eV diffusion mode. Control anneals of B-doped samples, with similar design as the phosphorus samples, suggest the same trend for B diffusion in silicon: lower vs. higher values of activation energies for nitrogen and vacuum anneals, resp. These results are discussed in terms of the concentration of Si self-interstitials mediating the diffusion of phosphorus and boron.

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

TI Thermo-oxidative degradation of linear low density poly(ethylene) in the presence of carbon black: a kinetic approach

AN 2001:773652 CAPLUS

DN 136:119074

TI Thermo-oxidative degradation of linear low density poly(ethylene) in the presence of carbon black: a kinetic approach

AU Goldberg, V. M.; Kolesnikova, N. N.; Paverman, N. G.; Kavun, S. M.; Stott, P. E.; Gelbin, M. E.

CS Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, 117334, Russia

SO Polymer Degradation and Stability (2001), 74(2), 371-385
CODEN: PDSTDW; ISSN: 0141-3910

PB Elsevier Science Ltd.

DT Journal

LA English

AB The mechanism of carbon black (CB) effects on the thermo-oxidative degradation of linear low d. polyethylene (LLDPE) was studied. Quant. measurement, in both the kinetic and diffusion mode, of the kinetics of LLDPE's thermo-oxidative degradation was done in four ways as follows: (i) in the absence of both CB and a stabilizer; (ii) in the absence of a stabilizer but in the presence of CB (Black Pearl 3700) (2), (iii) without CB but in the presence of an amine stabilizer (AI) (iv) with both CB and AI. The stabilizer chosen for this study was polymerized 1,2-dihydro-2,2,4-trimethylquinoline (Naugard Super Q). Measurements were done at 180° C, the AI concentration being $(1.1-9.8) \times 10^{-2}$ mol/kg, based upon a mol. mass of 0.874 kg/mol for the monomer unit. CB concentration was 5% by weight

while oxygen pressure $p_{O_2} = (50-300)$ mm Hg. Quant. parameters for the thermo-oxidative degradation of LLDPE were established for kinetic and diffusion conditions. The kinetics of the inhibited thermo-oxidative degradation of LLDPE, in the presence of an amine antioxidant such as Naugard Super Q, was found to be essentially no different than the degradation kinetics in the presence of hindered phenolic antioxidants. It was shown that CB may act as an inhibitor albeit a rather weak one. However, during inhibition of the thermo-oxidative degradation of LLDPE with AI, CB shows itself to be an effective synergist, especially over the AI concentration range of from

$(2 \text{ to } 6) \times 10^{-2}$ mol/kg (0.4-1.2% by weight). The most probable explanation for this synergy lies in the adsorption of stabilizer radical $In\cdot$ onto the surface of the CB particles and a resultant decrease in the value of the rate constant k_{10} of the chain transfer reaction between a polymer mol. RH and Inhibitor radical $In\cdot$.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

TI Formation of pegs during high-temperature oxidation of Fe₃Al containing yttrium

AN 2000:439790 CAPLUS
 DN 133:123684
 TI Formation of pegs during high-temperature oxidation of Fe3Al containing yttrium
 AU Cho, W. D.; Kim, Insoo
 CS Dept. of Metallurgical Engineering, University of Utah, Salt Lake City, UT, 84112-0114, USA
 SO Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science (2000), 31A(6), 1685-1687
 CODEN: MMTAEB; ISSN: 1073-5623
 PB Minerals, Metals & Materials Society
 DT Journal
 LA English
 AB The formation of pegs in the oxidation of Y-doped Fe3Al was studied using d.c. plasma anal., SEM, metallog., and electron probe microanal. to explain the effect of Y on the scale adhesion and diffusion mode. Alumina scale formed on Fe3Al-Y alloy was found to be adhesive, dense, and protective. Microstructural anal. showed that pegs in the oxidized alloys anchor the oxide scale to the alloy. The pegs formed due to an inward diffusion of oxygen that reacts with Al and Y at the grain boundaries of the substrate. No pegs were found in Y-free alloys.
 RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	21.89	23.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.25	-2.25

SESSION WILL BE HELD FOR 120 MINUTES
 STN INTERNATIONAL SESSION SUSPENDED AT 11:44:36 ON 02 NOV 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
 SESSION RESUMED IN FILE 'CAPLUS' AT 12:36:23 ON 02 NOV 2006
 FILE 'CAPLUS' ENTERED AT 12:36:23 ON 02 NOV 2006
 COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	21.89	23.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.25	-2.25

=> d hia

'HIA' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS ----- GI and AB
 ALL ----- BIB, AB, IND, RE
 APPS ----- AI, PRAI
 BIB ----- AN, plus Bibliographic Data and PI table (default)
 CAN ----- List of CA abstract numbers without answer numbers
 CBIB ----- AN, plus Compressed Bibliographic Data
 CLASS ----- IPC, NCL, ECLA, FTERM
 DALL ----- ALL, delimited (end of each field identified)
 DMAX ----- MAX, delimited for post-processing
 FAM ----- AN, PI and PRAI in table, plus Patent Family data
 FBIB ----- AN, BIB, plus Patent FAM
 IND ----- Indexing data
 IPC ----- International Patent Classifications
 MAX ----- ALL, plus Patent FAM, RE
 PATS ----- PI, SO
 SAM ----- CC, SX, TI, ST, IT
 SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;
 SCAN must be entered on the same line as the DISPLAY,
 e.g., D SCAN or DISPLAY SCAN)
 STD ----- BIB, CLASS

 IABS ----- ABS, indented with text labels
 IALL ----- ALL, indented with text labels
 IBIB ----- BIB, indented with text labels
 IMAX ----- MAX, indented with text labels
 ISTD ----- STD, indented with text labels

 OBIB ----- AN, plus Bibliographic Data (original)
 OIBIB ----- OBIB, indented with text labels

 SBIB ----- BIB, no citations
 SIBIB ----- IBIB, no citations

 HIT ----- Fields containing hit terms
 HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)
 containing hit terms
 HITRN ----- HIT RN and its text modification
 HITSTR ----- HIT RN, its text modification, its CA index name, and
 its structure diagram
 HITSEQ ----- HIT RN, its text modification, its CA index name, its
 structure diagram, plus NTE and SEQ fields
 FHITSTR ----- First HIT RN, its text modification, its CA index name, and
 its structure diagram
 FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
 structure diagram, plus NTE and SEQ fields
 KWIC ----- Hit term plus 20 words on either side
 OCC ----- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST; TI,IND; TI,SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC to view a specified Accession Number.
 ENTER DISPLAY FORMAT (BIB):end

=> d his

(FILE 'HOME' ENTERED AT 11:31:06 ON 02 NOV 2006)

FILE 'CAPLUS' ENTERED AT 11:34:30 ON 02 NOV 2006

L1 452 DIFFUSION MODE
L2 746901 OXYGEN
L3 3 L1(L) L2

=> concentration

156550 CONCENTRATION
69403 CONCENTRATIONS
224366 CONCENTRATION
(CONCENTRATION OR CONCENTRATIONS)
1909662 CONCEN
1168852 CONCNS
2648254 CONCEN
(CONCEN OR CONCNS)
L4 2694404 CONCENTRATION
(CONCENTRATION OR CONCEN)

=> 12(1)14

L5 60383 L2(L) L4

=> 14(1)15

L6 60383 L4(L) L5

=> aldehyde

107367 ALDEHYDE
104068 ALDEHYDES
L7 166367 ALDEHYDE
(ALDEHYDE OR ALDEHYDES)

=> palladium or platinum or pd or pt

161770 PALLADIUM
37 PALLADIUMS
161773 PALLADIUM
(PALLADIUM OR PALLADIUMS)
209279 PLATINUM
71 PLATINUMS
209300 PLATINUM
(PLATINUM OR PLATINUMS)
187554 PD
2370 PDS
189502 PD
(PD OR PDS)
242575 PT
5066 PTS
246762 PT
(PT OR PTS)
L8 515937 PALLADIUM OR PLATINUM OR PD OR PT

=> 16(1)18

L9 1804 L6(L) L8

=> 19(1)17

L10 10 L9(L) L7

=> d 110 1-10 ti

L10 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI Kinetic Evaluation and Modeling of Lignin Catalytic Wet Oxidation to
Selective Production of Aromatic Aldehydes

L10 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
TI Oxidation catalyst and oxidation method for hydrocarbons, alcohols and
aldehydes

L10 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

TI Determination of aliphatic aldehydes by liquid chromatography with pulsed
 amperometric detection

 L10 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
 TI Selective Oxidation of 1- and 2-Propanol with Molecular Oxygen by Noble
 Metal Catalysis in "Supercritical" Carbon Dioxide

 L10 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
 TI Isoquinoline derivatives as endogenous neurotoxins in the etiology of
 Parkinson's disease

 L10 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
 TI High-temperature superconductors in catalysis

 L10 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
 TI Oxidative esterification of aldehydes

 L10 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
 TI Catalytic oxidation of organic compounds in flow

 L10 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
 TI Mechanism of oxidation processes. XXVIII. Autoxidation of aldehydes

 L10 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
 TI Analysis and Chemistry of Fats in 1907, Concluded

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

40.11	41.37
-------	-------

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

-2.25	-2.25
-------	-------

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 12:40:32 ON 02 NOV 2006